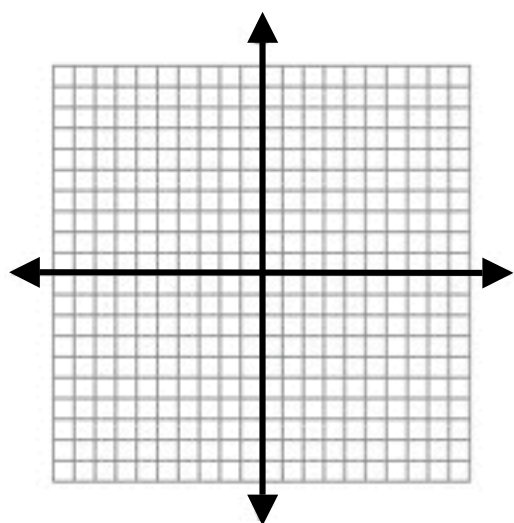


Chapter 7 Practice Test

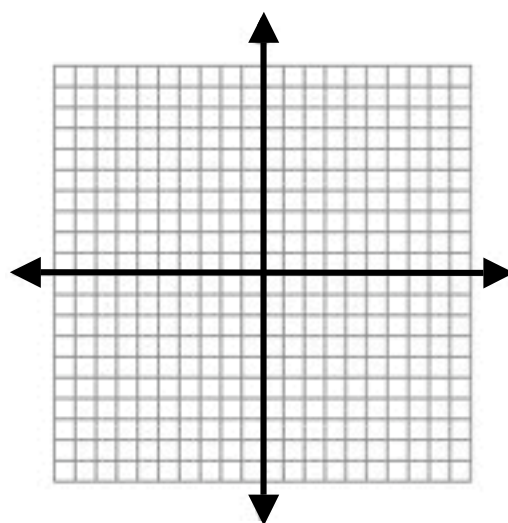
7.1 Solving Linear Systems using Graphing

Use Graphing to solve each system of equations. (3 points each)

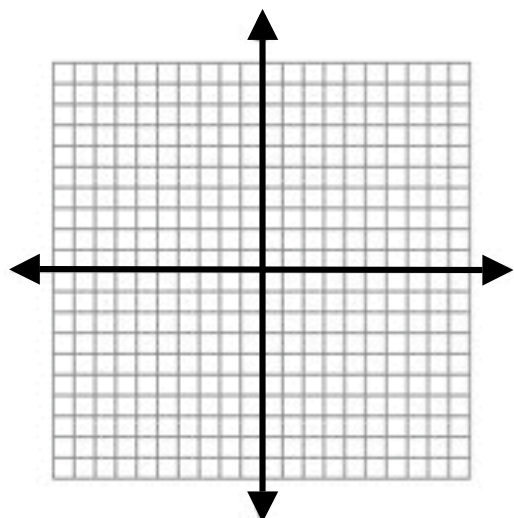
1) $x - y = 1$
 $4x - 2y = 6$



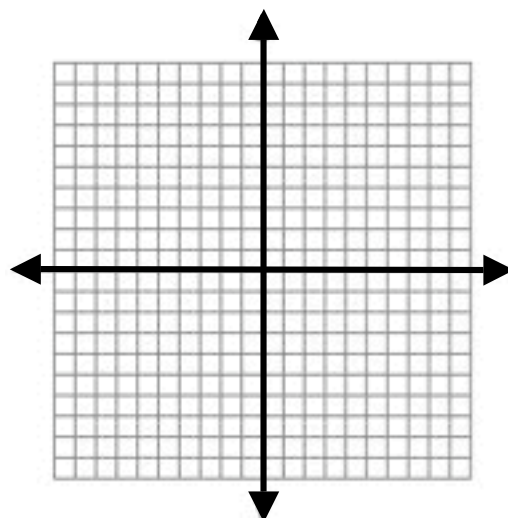
2) $x - y = 4$
 $2x + y = 5$



3) $x + 3y = 6$
 $x + 3y = -3$



4) $x - 2y = 4$
 $3x - 6y = 12$



7.2 Solving Linear Systems using Substitution

Use Substitution to solve each system of equations. (3 points each)

$$\begin{aligned} 5) \quad x + 2y &= 6 \\ 3x - 5y &= -26 \end{aligned}$$

$$\begin{aligned} 6) \quad 2x - 5y &= 16 \\ 6x + y &= -16 \end{aligned}$$

$$\begin{aligned} 7) \quad 3x + 4y &= 6 \\ y &= 2x + 7 \end{aligned}$$

$$\begin{aligned} 8) \quad 3x - 2y &= 2 \\ y &= 2x + 6 \end{aligned}$$

7.3 Solving Linear Systems using Elimination/ Linear Combinations

Use Elimination or Linear Combinations to solve each system of equations. (3 points each)

$$\begin{aligned} 9) \quad 4x + 3y &= 16 \\ 2x - 3y &= 8 \end{aligned}$$

$$\begin{aligned} 10) \quad 3x - 2y &= 20 \\ 5x - 6y &= 36 \end{aligned}$$

$$\begin{aligned} 11) \quad 2x + 5y &= 4 \\ -3x + 2y &= 13 \end{aligned}$$

$$\begin{aligned} 12) \quad -10 &= x - 3y \\ x + 2y &= 20 \end{aligned}$$

7.4 & 7.5 Choosing an Appropriate Method for Problems Solving with Systems of Equations

Choose 4 problems to solve using systems of equations. (4 points each)

13) Betsy is six years older than her sister. Eight years ago, she was four times as old as her sister was. How old is each girl now?

14) Three years ago, James was one half of Sally's present age. In seven years, the sum of their ages will be 77 years. Find the present age of each person.

15) The perimeter of a rectangle is 9 meters. Find the length and width of the rectangle if the length is twice the width.

16) One whole number exceeds another by 13. The sum of the two numbers is 109. Find each of the numbers.

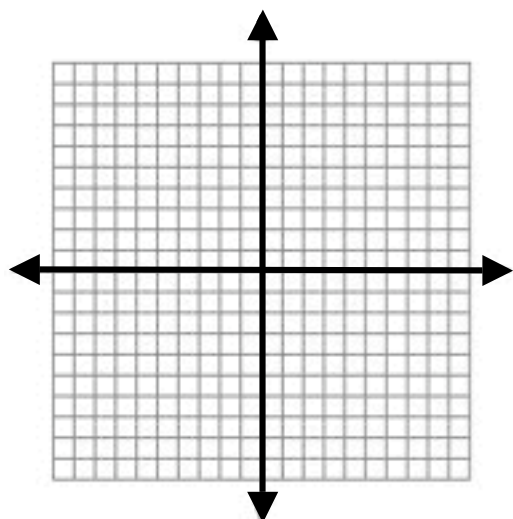
17) In this winter's bird census, the total number of Blue Jays and Cardinals counted was 1,216. Last winter, 420 more Blue Jays and double the number of Cardinals were counted, 2024 in all. How many of each bird were counted this winter?

18) A gas station sells 9600 liters of gasoline each day. The station sells twice as much regular unleaded as premium unleaded gas. How much of each type of gasoline does the station sell each day?

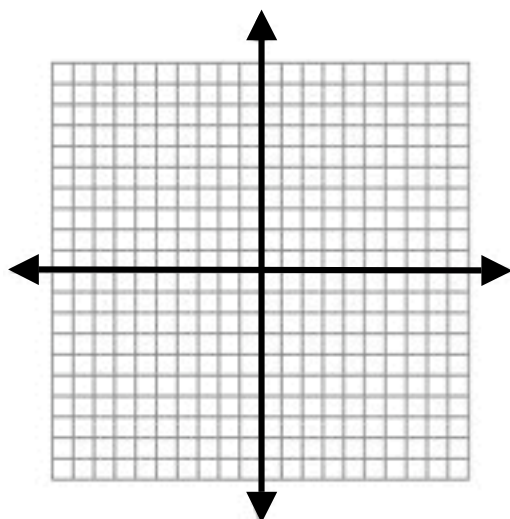
7.6 Solving Systems of Linear Inequalities

Graph each system of inequalities and indicate your solution set by shading. (5 points each)

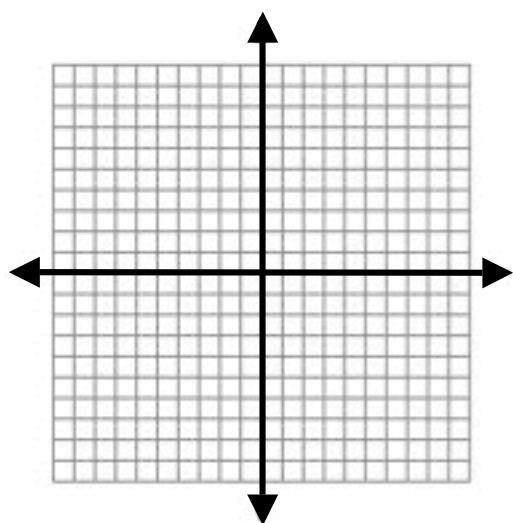
19) $x + y \leq 9$
 $x - y \geq 3$



20) $y < 2x + 2$
 $y > 2 - 2x$



21) $2x - 3y < -12$
 $2x + 3y > 0$



22) $3x - y > -2$
 $x - y \leq -6$

